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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/691,645      | 10/24/2003  | Seong-Woo Ahn        | 45914               | 7616             |

7590 02/08/2006

Peter L. Kendall  
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EXAMINER

NGUYEN, THUAN T

ART UNIT

PAPER NUMBER

2685

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/691,645             | AHN ET AL.          |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | THUAN T. NGUYEN        | 2685                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Luz et al. (U.S. Patent No. 6,321,073 B1).

Regarding claim 1, Luz discloses an apparatus for compensating the gain of an automatic gain controller (AGC) in a receiver including the AGC for controlling the gain of received packet data in a mobile communication system wherein packet data is discontinuously transmitted comprising a compensation controller performed the claimed function and a compensator for compensating the AGC value with the AGC compensation gain, thereby correcting errors generated in view of the nature of the AGC (refer to Fig. 3a & Fig. 3b, and col. 1/line 65 to col. 2/line 6 for the objective of Luz's system; col. 3/lines 25-55 and col. 4/lines 12-45 for the AGC controller within a radiotelephone, wherein the signals are CDMA signals, and CDMA signals are being considered as signals transmitted in packet data in discontinuously forms, refer to col. 1/lines 27-57 for background on CDMA and AGC circuits; Luz discloses compensation circuitry 202 with details on in-phase compensation circuit and quadrature compensation circuit for I and Q within CDMA; and Fig. 2 is simply a broader view to easy realize the concept of AGC in a receiver for digital signals received).

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As for claim 2, Luz further discloses the AGC value being extracted at the start of the predetermined period and temporarily stored (col. 3/lines 48-55).

As for claim 3, Luz further discloses a timing controller, a sampler, a temporarily storage, a first subtractor and a first lookup table for performing the AGC compensation gain, comparing and outputting a stored value corresponding to the compensation gain (refer to Figs. 3a & 3b again, col. 3/line 25 to col. 4/line 12 and col. 5/lines 1-28 (clock rate or timing) for these features).

As for claims 4 and 7, Luz teaches this feature, refer to col. 3/lines 48-55 as a (digital) sample is pre-stored in the buffer memory comprised of one slot including a transmission unit of packet data or CDMA samples.

As for claim 5, Luz further discloses to include an offset compensator for compensating the power level of the compensated AGC value with an AGC compensation offset calculated in the compensation controller (col. 4/lines 13-45 & col. 5/lines 5-21 for compensating the power level).

As for claim 6, this claim, a combination of claims 3 and 4, is disclosed by Luz, refer to claims 3-4 above.

As for claim 8, Luz teaches this feature as in addition to a first subtractor and first look-up table, Luz further includes a second subtractor 376 and a second look-up table 382 for obtaining the AGC compensation offset by outputting a stored value corresponding to the compensation offset (Fig. 3b, and col. 4/line 46 to col. 5/line 5).

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As for claim 9, Luz further teaches this feature for estimating the energy of the compensated AGC value received from the compensator and normalized the estimated energy (col. 6/lines 7-22).

As for claims 10-16, these method claims are rejected for the reasons given in the scope of claims 1-9 as discussed in details above.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Lee, Shimazaki, Poirier et al., and Shapira (in PTO 892 attached) disclose systems related to AGC circuitry in radiotelephone systems and techniques.

4. **Any response to this action should be mailed to:**

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**or faxed to the New Central Fax number:**

(571) 273-8300, (for Technology Center 2600 only)

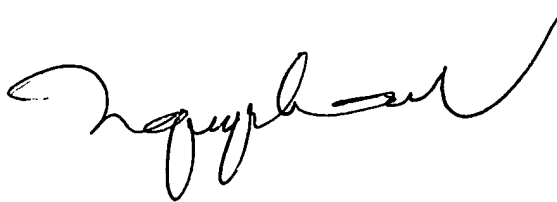
Hand deliveries must be made to Customer Service Window,

Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tony T. Nguyen', with a stylized flourish at the end.

**TONY T. NGUYEN**  
**PATENT EXAMINER**

Tony T. Nguyen  
Art Unit 2685  
February 02, 2006